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Reference to Related Applications

This application is a continuation-in-part of United States patent application Serial No. 09/159,801 filed on September 23, 1998 and claims priority benefits under 35 U.S.C. §119(e) to United States provisional application Serial No. 60/059,929, filed on September 24, 1997.

Field of the invention

10 The present invention is related to a method of localized liquid treatment of the surface of a substrate, like cleaning or etching. The invention is also related to an apparatus used to perform said treatment. Application of the invention is possible in a number of wet
15 processing steps which are frequently used, e.g. in the fabrication of integrated circuits or liquid crystal displays.

Background of the invention

20 In the fabrication of micro-electronic devices such as integrated circuits or liquid crystal displays, a substrate has to go through a number of fabrication steps, including wet etching, wet cleaning or rinsing.

25 In the documents U.S. Patent No. 5,271,774 and Japanese Patent JP-A-07211686, methods are described to remove a liquid from the surface of a substrate by applying a gaseous substance to the substrate, which, when mixed with the liquid, reduces the surface tension of the liquid,
30 so that it can be easily removed from the surface by a centrifugal force, i.e. by subjecting the substrate to a rotary movement. However, these methods are only applicable to the substrate as a whole, and cannot be used

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This application is a continuation of serial number 09/553,988 filed 04/20/2000 now patent number 6,398,975 , which is a continuation-in-part of serial number 09/159,801 filed 09/23/1998 now patent number 6,491,764, and claims benefit of provisional number 60/059,929 filed 09/24/1997, and claims benefit of provisional number 60/079,688 filed 03/27/1998, and claims benefit of provisional number 60/084/651 filed 05/06/1998.

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